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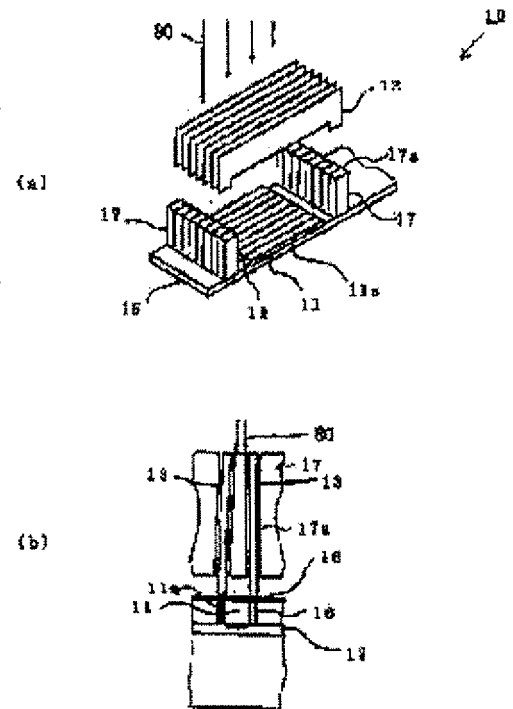
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(54) RADIATION DETECTING ELEMENT, RADIATION DETECTOR USING THE SAME, AND COMPUTERIZED TOMOGRAPHY DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a high-accuracy radiation detector requiring no alignment of a collimator plate and a scintillator and a computerized tomography device using the same.

SOLUTION: A radiation detecting element 10 comprises a scintillator 11 producing light by application of radiation 80, a photoelectric conversion element 12 converting this light into a current, a light reflection means 16 preventing the light from spreading to portions other than the photoelectric conversion element 12, and a substrate 15 supporting them. Further, a collimator block 17 supporting a collimator plate 13 controlling the amount of X-rays incident on the scintillator 11 and absorbing scattered rays is integrally provided on the substrate 15. Grooves 11a separating the scintillator into a number of channels and a collimator block groove 17a supporting the collimator plate 13 are formed by a position reference 40 provided on the substrate. Thus, by simply installing the collimator plate 13 in the groove 17a, it can be aligned with the scintillator.



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